

## Education and training on making lipbalm as safe cosmetic in MAN 1 Kota Jambi

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### Abstract

**Background:** Cosmetic products, especially lip balms, are widely used among teenagers, yet many students are unaware of the composition, safety, and proper formulation of such products. Educational activities on cosmetic formulation can enhance students' scientific understanding and entrepreneurial potential in the cosmetic field. **Objective:** This community service program aimed to provide education and hands-on training to students of MAN 1 Kota Jambi on the formulation and production of lip balm cosmetics using safe and natural ingredients. **Methods:** The program was conducted through interactive lectures, demonstrations, and practical workshops. Participants were introduced to the basic concepts of cosmetic formulation and the role of each ingredient. The training involved direct formulation practice, including measuring, mixing, and molding lip balm preparations. Evaluation was carried out through participant satisfaction. **Results:** The program successfully increased students' understanding of cosmetic formulation and safety. Participants were enthusiastic and able to produce lip balm products with proper formulation techniques. The activity also fostered creativity and entrepreneurship awareness among students. **Conclusion:** The education and training program effectively enhanced students' knowledge and skills in making lip balm cosmetics. It demonstrated that practical cosmetic education can serve as an innovative approach to developing scientific literacy, creativity, and entrepreneurial spirit in students.

**Keywords:** Cosmetic; lipbalm; education; training.

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## INTRODUCTION

Cosmetics are an integral part of daily life and have become a growing area of interest among adolescents, particularly students who are increasingly exposed to beauty and personal care products through social media and popular culture. However, awareness regarding the formulation, safety, and quality of cosmetic products remains limited, especially among young people. Many students use cosmetic products without understanding their composition, possible side effects, or the importance of using safe and natural ingredients [1–5].

Educational programs in schools serve as an effective platform to introduce students to the science and technology behind cosmetic formulation. By combining theory and practical experience, such programs can enhance students' knowledge of chemistry, promote awareness of product safety, and encourage creativity and entrepreneurship.

This community service activity was carried out at MAN 1 Kota Jambi with the purpose of educating students about the basic principles of cosmetic formulation through direct training on making lip balm products. Lip balm was chosen as the training material because it is a simple and popular cosmetic product that can be formulated using natural, safe, and easily available ingredients. Through this program, students were expected to gain not only technical skills but also a broader understanding of product safety, hygiene, and innovation in cosmetic preparation [6–8].

## METHODS

This community service program was conducted at MAN 1 Kota Jambi with students. The activity was designed using an educational and participatory approach consisting of two main stages: preparation and implementation. In the preparation stage, coordination was carried out with the school to determine the schedule, number of participants, and required materials. Educational and training materials on cosmetic formulation, lip balm composition, and safety aspects were also prepared.

The implementation stage consisted of two main sessions. The first session was an educational session delivered through an interactive lecture that introduced the basic concepts of cosmetic formulation, the function of each ingredient in lip balm, and principles of product safety and hygiene. The second session involved hands-on training, where participants practiced making lip balm using natural ingredients such as beeswax, coconut oil, cocoa butter, castor oil, almond oil, tocopherol, and peppermint oil. The facilitators guided the students step by step in measuring, melting, mixing, and molding the lip balm until the final product was obtained [9].

## RESULTS

The community service program was successfully implemented at MAN 1 Kota Jambi and received positive responses from students. A total of 30 students participated actively in the activity. During the educational session, students showed high enthusiasm and curiosity about cosmetic formulation, particularly regarding the use of natural and safe ingredients.



**Figure 1.** Community Service Team and Participants

However, after attending the educational and hands-on training sessions, students were able to correctly identify the function of key ingredients such as waxes, oils, and fragrances, as well as demonstrate good manufacturing practices during the lip balm preparation process. In the practical session, participants successfully produced lip balm products with appropriate texture, consistency, and aroma. The final products were visually appealing and met the basic quality characteristics expected from a lip balm formulation.



**Figure 2.** Educational sessions

## DISCUSSION

The implementation of the education and training program on lip balm formulation at MAN 1 Kota Jambi demonstrated that community-based learning can serve as an effective platform to integrate scientific knowledge, creativity, and entrepreneurship among students. The increased enthusiasm indicated that the combination of theoretical education and practical training effectively improved participants' understanding of cosmetic formulation principles and product safety. This finding aligns with previous studies suggesting that experiential learning approaches significantly enhance students' cognitive and psychomotor skills in applied science education [5,10–16].



**Figure 3.** Hands-on Session

The students' enthusiasm during the hands-on session also reflected their interest in learning activities that are interactive and directly applicable to daily life. The practical aspect of formulating lip balm not only helped participants comprehend chemical and physical properties of cosmetic ingredients but also introduced them to concepts of hygiene, measurement accuracy, and formulation balance. Such experiences contribute to building scientific literacy and problem-solving abilities skills that are essential for 21st-century education. Furthermore, the program encouraged students to think creatively and recognize the potential of cosmetic formulation as a small-scale entrepreneurship opportunity. This aligns with the national agenda to promote entrepreneurship and innovation among young generations through vocational and science-based education. Teachers' involvement and support throughout the activity also played a crucial role in reinforcing the learning process and ensuring sustainability for future similar programs [17–25].

Overall, this activity illustrates that integrating education and community service can be an impactful strategy to empower students with both scientific knowledge and practical skills. The success of this program suggests that similar educational models could be applied to other schools to promote awareness of product safety, stimulate innovation, and cultivate entrepreneurial mindsets among youth.

## CONCLUSIONS

The community service program on making lip balm cosmetics at MAN 1 Kota Jambi successfully enhanced students' knowledge and skills in cosmetic formulation.

Through a combination of educational sessions and practical training, participants learned about the functions of natural ingredients, product safety, and basic formulation techniques. The students showed great enthusiasm and were able to produce lip balm products with good quality and appearance. This activity proved effective in promoting scientific understanding, creativity, and entrepreneurship among students. It also emphasized the importance of integrating theory with practical experience to make learning more engaging and applicable. The program can serve as a model for future community-based education initiatives aimed at empowering youth through science and innovation.

### **CONFLICT OF INTEREST**

The authors declare that they have no conflicts of interest regarding this study.

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### **DECLARATION OF ARTIFICIAL INTELLIGENCE USE**

We confirm that all AI-assisted processes were critically reviewed by the authors to ensure the integrity and reliability of the results. The final decisions and interpretations presented in this article were solely made by the authors.

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